



Beyond Web: Agent based Publishing

Wide Area Information
Servers, Inc

*Brewster Kahle, President
DAGS, June 1995*

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Internet Publishing Today: Browsing

- World Wide Web
- Isolated Services
- Wired---CMP---Time Inc---Britannica

2



Customer Demands

- **What I want: Personalization**
- **How I want it: Packaged Delivery**
- **Single System: Aggregation**
- **Single Price: Understandable costs**

3




Agent Technology “Offers” it All:

- **Automated Queries**
- **Vertical Market Packaging**
- **Aggregation (Starting to Appear)**
- **Easier Profiling (In research systems)**
- **Understandable Pricing (Uh, Someday)**

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NewsHound: Start

MERCURY CENTER - Entering NewsHound Service

 The Mercury Center NewsHound searches news articles and classified ads from the San Jose Mercury News and other information sources and sends relevant documents to your electronic mail box. NewsHound Profiles search every hour or around the clock so that you don't miss important information.

You can browse this area at no charge other than regular connect time. To use the NewsHound service, however, you must first register your screen name by calling toll free 1-800-818-NEWS.

A Charter subscription to NewsHound costs just \$4.95 per month for up to five profiles. That's half off the usual price of \$9.95 -- and you can try the service for 30 days at no extra charge.

Click "Continue" to proceed.

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NewsHound Profile

MERCURY CENTER - Create NewsHound Profile

Use this form to create, delete or change a NewsHound profile.

Enter "x" to: ☒ Create ☐ Delete ☐ Change

Profile title

Search: ☒ Articles ☐ Ads ☐ Both

Type relevant words or phrases, separated by commas, in each box:

Possible terms

Required terms

Terms to exclude

Selectivity. Leave blank for default or enter 1 to 100. See Help. ☒

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NewsHound Email Article

[60] DELAHAYE GROUP TO OFFER NE

Date: Wed, 31 May 1995 15:50:23 -0800
To: breuster@uais.com
From: NewsHound@jmercury.com (NewsHound)
Subject: [60] DELAHAYE GROUP TO OFFER NETBENCH: HIGH LEVEL WEB-SITE QUALITATIVE ANALYSIS AND REPORTING; NETBENCH BUILDS ON SYSTEMS PROVIDED BY I/P

Selected by your NewsHound profile entitled "ONLINE SERVICES". The selectivity score was 60 out of 100.

Delahaye Group To Offer NetBench: High Level Web-Site Qualitative Analysis and Reporting; NetBench Builds on Systems Provided by I/P
Delahaye Group To Offer NetBench: High Level Web-Site Qualitative Analysis and Reporting; NetBench Builds on Systems Provided by I/PRO and Internet Media Services

PORTSMOUTH, N.H.--(BUSINESS WIRE)--May 31, 1995--The Delahaye Group today announced NetBench(TM), a new qualitative analysis and reporting service for evaluating the effectiveness of Internet marketing programs on the World Wide Web.

Related Internet service offerings to enhance the NetBench capability were also announced, including analysis of effective web-site design, data capture features, and message communication. These services will build on systems provided by I/PROTH (Internet Profiles Corporation), San Francisco and Internet Media Services, Inc. (IMS), Palo Alto.

NetBench, the newest addition to Delahaye's range of qualitative, comprehensive measurement services, evaluates the effectiveness of marketing sites on the World Wide Web. The NetBench analysis service, building on data compiled by the

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Email Delivery

Re- hpcwire

H P C w i r e
The E-zine for High Performance Computing and Commercial Processing
*** November 23, 1994: Vol. 3, No. 46 Circulation: 18,781 ***
This Week's Table of Contents Represents 201 Pages of Text
Article Retrieval Instructions at end of this file <more@hpcwire.tgc.com>.

The Portland Group (PGI) is now shipping its High Performance Fortran (HPF) compiler. For more information, see the PGI home page at <http://www.pgroup.com> or retrieve the following HPCwire articles:

4815) Special PGI Program Promotes Parallel Computing in Education
4817) First Production Release of pghpf Compiler from PGI
4822) PGI Announces HPF Compilers on Silicon Graphics Systems
932) The Portland Group Backgrounder and Fact Sheet

IN THIS ISSUE

1520) Two Faces of New Congress Will Weigh Future of HPCC and NII
4879) 1994 Gordon Bell Award Winners Announced at Supercomputing'94
1521) FUTURE: Making the NII Real, SC'94 Keynote by Edward R. McCracken

For a free 6-week trial subscription, email: <trial@hpcwire.tgc.com>

SPECIAL SUPERCOMPUTING'94 SUPPLEMENT

950) We missed you at SC'94 and you still have a second chance!
To access the LIVEwire daily coverage issues of SC'94, retrieve <950>.

IN THE NEWS *****

GORDON BELL AWARD WINNERS

Lines

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Individual Inc Setup

HEADSUP TOPIC SELECTION FORM

Please complete and fax a copy of this form to
1-800-417-1000 to begin receiving HeadsUp.

☐ **YES** By completing my personal profile based on the information below, and sending
HeadsUp cards to my weekly TURBO 20 by highlighting the weekly offer, you receive my
request. I will receive many HeadsUp notices as I need, when you do not exceed my limit.
To fulfill the range of HeadsUp, please select at least five topics.

Priority Topic Codes	Other Areas of Interest (You may select as many as you wish)
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

Name _____
 Title _____
 Department _____
 Company _____
 Address _____
 City _____ State _____ Zip _____
 Phone _____

DELIVERY METHOD
 I wish the card to be sent by _____
☐ Mail ☐ Fax
☐ E-Mail (E-Mail Card)
 If you select E-Mail, please provide your E-Mail address: _____
 FAX# (if applicable): _____

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WAIS Email Alert Setup

Netscape: Profile Contents

Location: <http://www.wais.com/cdev/pub/profile.html>

[What's New?](#) [What's Cool?](#) [Handbook](#) [Net Search](#) [Net Directory](#)

News OnLine

Profile Contents

[Main Page](#) [Feed back](#) [Help](#)

[Delete] [Search Tips] [Edit]

Profile: ☒ chocolate AND ((company = (Chindell)) OR nestle)

Profile 2: ☐ Paul ADJ Jan

Profile 3: ☐ germany AND (date = 1/01/95 TO 12/31/95)

Profile 4: ☐ us interest rates AND (date = 1/01/95 TO 11/31/95)

Profile 5: ☐ derivatives AND ((company = (bankers trust)) OR bankers trust)

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Ensemble Digital Newspaper

Investor's Business Daily - [Inside Today - 04-25-95]

File Edit Newspaper View Window Help

Investor's Business Daily

Tuesday, April 25, 1995 "The Newspaper For Important Decision Makers"

INSIDE Today

Front Page

☒ Executive Update

☒ The New America

☒ The Economy

☒ The Markets

Inside The Market

NASDAQ Amex Markets

Making Money In Mutuals

Stocks In The News

NYSE Stocks

NASDAQ Stocks

Amex Stocks

Volume Tables

NYSE Stocks

NASDAQ Stocks

Amex Stocks

Personal Index

Today's Headlines

Weekend Review

Investor's Business Daily

Visit the Hewlett Packard Web Site!

Show Me More

Advertiser Index

Section D

WASagent Personal Newspaper

Deanna's News

WASagent

From VAS Inc. Tuesday, May 30, 1995

Online Publishing

Electronic Publishing
Media - Publishing
Interactive/Online Services
Internet

Wall Street Journal

Front Page
Market Place Front Page
Technology
Editorial Stories

Internet

20 PENNSYLVANIA LIBRARIES WILL GIVE INTERNET ACCESS TO PUBLIC

COMPUTERWORLD LAUNCHES CENTER FOR PROFESSIONAL DEVELOPMENT: HOME PAGE ON THE WORLD WIDE WEB; On-Line Career Resource for Computer Professionals

IBM ThinkPad Proven products now featured on the Internet at The Road Warrior Outpost

Labor Unions Off To Slow Start In Cyberspace

NOVELL BRINGS THE INTERNET RIGHT TO THE DESKTOP

PR NEWSWIRE UNVEILS SITE ON THE WORLD WIDE WEB

PREMIER INTERNET BOOK MARKETING FIRMS TO ANNOUNCE UNPRECEDENTED STRATEGIC ALLIANCE AT ABA CONVENTION

Current Events

Congress
Supreme Court
Federal Trade Commission
Federal Communications

Personal Index

WAS® Search

About WAS

WALSagent Setup

Sample Personal Paper • Setup

Newspaper Name:

Categories

- Companies
- Industries
- Subjects
- Regions
- Market
- Government
- VSJ Codes
- Products
- Statistics Codes

Select a company from the list at right or type the ticker symbol below.

Possible Selections

- Abbott Laboratories
- Acclaim Entertainment
- Adobe Systems
- Advanced Micro Devices
- Aetna Life & Casualty
- Ahmanson (HF) & Co.
- Air Products & Chemicals Inc.
- AirTouch Communications
- Alberto-Culver
- Albertson's Inc.
- Aloan Aluminum Ltd.
- Alco Standard
- Alexander & Alexander
- Allergan Inc.
- Allied Signal

Newspaper Options **Fetch**

Topic Options **Save**

Newspaper Setup

Section 1:

Topic #1:

Topic #2:

Topic #3:

Topic #4:

Section 2:

Topic #1:

Topic #2:

Topic #3:

Topic #4:

Section 3:

Topic #1:

Topic #2:

Topic #3:

Topic #4:

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Netscape: Quote.Com

Back Forward Home Reload Images Open Print Find Stop

Netsite: <http://www.quote.com/bin/quote-form/wals/GkZeHp.C6sQ12/portfolio>

What's New? What's Cool? Handbook Net Search Net Directory Newsgroups

Quick Quotes

Symbol	Time	Open	High	Low	Last	Change	Volume
AMER	16:32	36 1/8	36 1/4	34 1/2	34 3/4	-1	461400
CSCO	16:55	45 7/8	46	43 3/8	43 3/4	-2 1/8	3769200
MSFT	17:10	88	88 3/8	82 5/8	83	-4 1/2	6225800
SUNW	16:45	47	47 1/8	43 5/8	44 1/8	-3	2479800

Click on the symbol for QuoteCom Links to view more data.

Fundamentals

Name	Earn/Shr	P/E	Div/Shr	52-wk Price Range
AMERICA ONLINE INC DEL	-1.18	95.0	N/A	13.87 - 49.12
CISCO SYS INC	1.49	31.0	N/A	18.75 - 48.12
MICROSOFT CORP	2.35	38.0	N/A	46.87 - 89.50
SUN MICROSYSTEMS	3.60	13.0	N/A	18.25 - 50.50

Tuesday, May 30

17/50 16

Quote.com's Email Alerting

QuoteCom Staff, 5:05 PM - 0700, QuoteCom Portfolio Report

Subject: QuoteCom Portfolio Report

Date: Tue, 30 May 1995 17:05:39 -0700
 From: QuoteCom Staff <staff@quote.com>
 To: quote_com@wais.com
 Subject: QuoteCom Portfolio Report

Tuesday May 30

Symbol	Quantity	Close	Change	Value	Change
AMEX	0.000	34.7500	-1.0000	0	0
CSCO	0.000	43.7500	-2.1250	0	0
MSFT	0.000	83.0000	-4.5000	0	0
SUNW	0.000	44.1250	-3.0000	0	0
Totals				0	0

MarketScope, BusinessWire, PR Newswire, S&P News items for your portfolio today:

B #236463 CSCO TCG Selects Cisco LightStream 2020 As Exclusive Enterprise ATM
 B #238432 MSFT Wang and Microsoft close worldwide strategic alliance; Microso
 B #237631 SUNW ADVISORY/Today's competitive market place requires new business
 P #237591 SUNW HADCO CORPORATION ANNOUNCES RECEIPT OF MULTI-MILLION DOLLAR BAC
 B #236579 SUNW SunService Expands and Enhances Sun Asset Survey Reporting Serv
 B #236573 SUNW SunService unveils support services for Solaris migration; desi

News stories can be retrieved by sending:

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Custom Newsletters: Journalist by PointCast

Journalist (Paper)

File Edit Create Download View Window Options Help

Table of Contents

- World News
 - World News
 - AP World news
- Media, Publishing
 - News
 - News By Ticker
 - Stock Table
 - stock table
- Soft Drinks
 - Soft Drinks
- Telephone Systems
 - News
 - News By Ticker
 - Stock Table
 - stock table

Media, Publishing

News

(News By Ticker - Not Downloaded Yet)

Stock Table

Symbol	Open	High	Low	Last	Change	Volume	Date
ORRC	no data	no data	no data	no data	no data	no data	no data
ALOT	no data	no data	no data	no data	no data	no data	no data
BIOE	no data	no data	no data	no data	no data	no data	no data
AMPC	no data	no data	no data	no data	no data	no data	no data
AMBJ	no data	no data	no data	no data	no data	no data	no data
COIM	no data	no data	no data	no data	no data	no data	no data

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For Help, press F1

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Online

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Agent Progress

- **Quote.com: Financial Services**
- **NewsHound: Email Alerting**
- **Individual Inc: FAX and Email, Human editors**
- **PointCast: Bringing Customized Layout**
- **WAIS Inc: Ascii Email, Personal Digital Newspapers**

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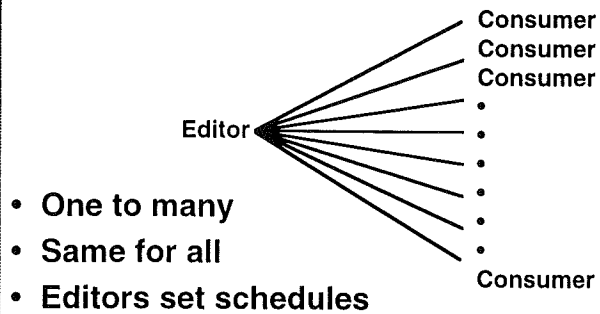


Future Directions in Agents

- **Refinement of “mission”: Everyone is an Editor**
 - **Music Selection: Ringo by MIT**
 - **Video Selection: BellCorp**
- **Aggregation from Multiple sources**
 - **Centralization (eg. Dialog, Individual, InfoSeek)**
 - **Robot Gatherers: Webcrawler, Yahoo**
 - **Search Protocols (Z39.50, PLS, OpenText)**
- **Adaptive Refinement of Mission: not yet.**

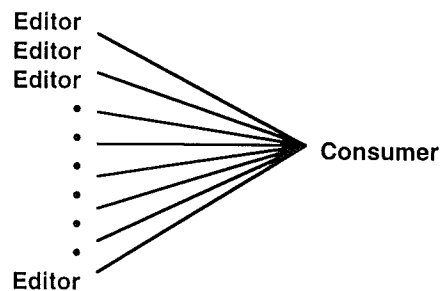
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Publishing of Old: Push



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Agent Publishing: Consumer Pull



- Integrated access to multiple sources
- Personal preferences drives the flow
- Easy Delivery

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Contact Information

- info@wais.com, <http://www.wais.com>
- Brewster@wais.com
- 415-356-5400



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